

Multi-Media Cancer Education Core Curriculum for Residents and Primary Care Practitioners at the Arkansas Cancer Research Center

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The Arkansas Cancer Research Center at the University of Arkansas for Medical Sciences used interactive multi-media to develop a flexible, self-study core curriculum of scientific information about common cancers. The curriculum is intended to provide residents and primary care practitioners with the knowledge required to render optimal surveillance, early detection, supportive care, and long term follow-up to patients with common cancers.

The multi-media modules communicate basic scientific knowledge about the biology, pathology, and general principles for prevention, early diagnosis, and treatment of cancer. Oncology clinic experience with a mentor and oncology resource manual supplement the learning. Fifteen modules are in various stages of completion.

Digitized visuals, including MRIs, X-rays, CT scans, gross specimens of tumors, normal and abnormal histology, and the manifestation of symptoms, are blended with text, narration, video clips, and animated simulations to present the information in a concise and stimulating manner. Because the modules are constructed in components, the information is easily updated.

Each module contains Tutorial, Summary, Questions, and Glossary sections. Six content areas are featured: Introduction, Anatomy, Epidemiology, Pathophysiology, Signs and Symptoms, and Treatment.

The tutorial gives the learner a basic understanding of a particular cancer subject. Most tutorial sections can be completed in thirty to forty-five minutes.

The Summary section permits the option of quickly reviewing the most important aspects of a particular cancer. The Glossary defines many of the terms used in a module.

By asking a series of multiple-choice questions, the questions test knowledge of the material. This section also provides an additional opportunity to teach. Feedback for an incorrect answer explains why the answer is wrong. Feedback for a correct answer reinforces the

material. Questions are based on material covered in the Tutorial.

Learners navigate through the modules by clicking on icons which represent the different content areas, then paging through the selected text. They can page forward or backward or leave a section at any time. For example, learners may choose to go straight to the Summary. Or learners may use the Questions as a self-test to determine if they need to go through the Tutorial.

The flexible modules are designed to allow the learner to view each module in the most time-efficient manner possible and to pursue a self-selected educational path. Learners who don't need or want a great amount of information can complete the Questions or summary sections. Those who want more scientific detail can review the Tutorial. Within the Tutorial is an option for more in-depth study. In the breast module, for example, the learner who wants more information can click on the name of a mass to find out more about that particular mass and to view a gross specimen.

The modules are structured in accordance with the *Cancer Curriculum Guidelines for Medical Students* published by the American Cancer Society and Professors of Clinical Oncology. The modules are evaluated initially by two oncology content experts, who verify the accuracy of the content and provide feedback concerning the functional layout of the module, and a family practice physician, who verifies that the information presented by the module is appropriate and sufficient for the intended audience of residents and primary care practitioners.

Learners complete a ten-question evaluation, presented on the computer at the conclusion of each module, to assess whether the programs meet their needs. Preliminary results of these evaluations have been very positive.